

### REMARKS

Claims 1-10, 57-75, 77-85, 87, 99 and 100-103 are pending. Claims 1, 57, 66, 77, 87 and 101 have been amended. Support for the Amendment may be found throughout the specification and drawings as filed, such as at page 7 of the specification. Attached hereto is a marked-up version titled "Version with Markings to Show Changes Made."

#### *Claim Rejections 35 U.S.C. §102(b)*

The Examiner rejected Claims 1-4, 8-10, 57, 60, 64-67, 70, 75 and 101 as being anticipated by King, United States Patent Number 5,266,347. The Applicants respectfully disagree. However, the Applicants have amended the claims in accordance with the Examiner's instructions. Specifically, the Examiner requested the claiming of a dosage amount to more specifically claim an antibiotic level sufficient to treat an animal, and referenced page 7 of the specification. Accordingly, the Applicant has amended the claim to more particularly describe an antibiotic level sufficient to treat an animal, through claiming "an antibiotic activity sufficient to ameliorate an antibacterial infection to treat an animal wherein the antibiotic activity is at least about 10g/lb to about 300 g/lb" in the independent claims. Thus, as the Examiner indicated, an activity above the mere growth deterrent effect of King is claimed. For example, the King reference discloses an activity of up to 2 kg/ton, as opposed to the presently claimed range which is about 20 kg/ton to about 600 kg/ton. Therefore, withdrawal of the rejection is respectfully requested.

#### *Claim Rejections 35 U.S.C. §102(b)*

The Examiner rejected Claims 57, 60-66, 70-73, 75, 87, 101-103 as being anticipated by Klothen, United States Patent Number 4,447,421. The Applicant respectfully disagrees. However, the Applicant has amended the claims as described previously to more particularly describe a antibiotic activity level of a fermentation solid sufficient to treat an animal, which is not disclosed by the Klothen reference. Therefore, withdrawal of the rejection is respectfully requested.

*Claim Rejections 35 U.S.C. §103*

The Examiner rejected Claims 1-4, 8-10, 57, 60, 64-67, 70, 75 and 101 as being obvious over King, United States Patent Number 5,266,347, in view of Chapman, United States Patent Number 4,211,781, Kemp et al, United States Patent Number 5,908,634, and Sobin et al, United States Patent Number 2,516,080. The Applicant respectfully disagrees.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Ryoka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974). *See also In re Wilson*, 165 U.S.P.Q. 494 (C.C.P.A. 1970). As stated previously, the claims have been amended to include a particular range of activity which is not taught or suggested by the King reference, nor any of the other submitted references.

As stated by the Examiner, the King reference shows a low activity to hinder growth of a mold, and fails to indicate that the composition is dustless or uses oil. To cure the defects of the King reference, the Examiner asserts Chapman for teaching the desirability of a dustless composition which uses an oil to address this concern, and does not disclose a ferment. As correctly stated by the Examiner, Kemp only discloses a fermentation of molasses, which relies on the additional of antibiotics. Sobin discloses the preparation of tetracycline, but does not disclose the use of the fermentation solids as claimed. The Examiner then asserts the following.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made desiring to utilize an effective stable, medicated feed, to use one of King, modified by Chapman, also teaching medicated feed, to reduce dust by using oil, and by Kemp, showing similar granular feed premixes, with addition of antibiotic of choice, and preparation thereof shown by Sobin in the case of tetracycline. *Office Action, Page 4.*

Obviousness cannot be established by combining the teaching of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 221 USPQ 929 (Fed. Cir. 1984). Thus, the Examiner may not use the patent application as a basis for the motivation to combine or modify the prior art to arrive at the

claimed invention. In the present instance, King teaches the hindrance of fungal growth, and not treatment of an animal. The referenced sections of King for such a teaching do not even rise to a "suggestion to try."

Although the antibiotic within the antibiotic biomass may have some beneficial effect on the animal, the purpose of the present invention is to protect the feed itself from fungal contamination. *King, Col. 4, Lines 19-22.*

The resultant feed is (1) protected from fungi contamination, (2) permits enhanced chicken growth rates and (3) controls and prevents diseases in the chicken associated with a fungi infection or mycotoxin production. *King, Col 5, Lines 31-35.*

Thus, King does not teach the treatment of an animal as claimed. Further, King even teaches away from the present invention, as shown in the following excerpt.

While not wishing to be bound by any theory or explanation, it is believed that the antibiotic biomass is active or effect against growth of fungi, mold and yeast, but not against bacteria. One explanation may be that fungi (but not bacteria) contain ergosterol in their membranes. *King, Col 5, Lines 36-41.*

"A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." *M.P.E.P. 2131.02, citing W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Because King teaches low concentrations needed to prohibit growth which are not effective "against bacteria", with "any antibiotic within the antibiotic biomass which is consumed by the animal is normally not absorbed or retained within the animal" a person of ordinary skill in the art would not view King as teaching the treatment of an animal as claimed, nor would a person modify the reference as proposed by the Examiner because such a modification would be contrary to the intent and teachings of the King reference. *King, Col. 5, Lines 36-41, Col. 6, Lines 31-33.* Therefore, it is respectfully submitted that King could not be modified as proposed, since the reference teaches away from such a modification.

Additionally, the other references do not correct the defects of the King reference. Chapman is relied upon solely to teach that "dusty" is undesirable. Kemp does not teach a fermentation product as claimed, but rather teaches fermentation of molasses to which antibiotic is added. Sobin teaches a purified antibiotic, and does not disclose, teach or suggest the fermentation solids as claimed, but rather teaches the purification of an

antibiotic. Although Sobin discloses "The invention embraces the antibiotic and its salts in dilute solutions, as crude concentrates, and in pure crystalline form," the Sobin reference only discloses the crude concentrate as a step toward the pure crystalline form. *Sobin, Col. 1, Lines 8-10.*

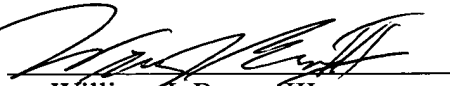
Therefore, it is respectfully submitted that the claims are allowable as amended, and withdrawal of the rejection is respectfully requested.

CONCLUSION

In light of the forgoing, reconsideration and allowance of the claims is earnestly solicited.

Respectfully submitted,  
Winstrom,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Tetrarily Amended) A substantially dustless animal feed premix composition in solid noncompacted granular form and having a resistance to powdering, said composition comprising a physical admixture of granular fermentation solids comprising an antibiotic, said fermentation solids resulting from reduction of a fermentation broth including a fermentation medium in which an organism was cultured for producing the antibiotic, said fermentation solids having an antibiotic activity sufficient to ameliorate an antibacterial infection to treat an animal wherein the antibiotic activity is at least about 10g/lb to about 300 g/lb, and further comprising at least one potency standardizer selected from the group consisting of an edible feed material and a mineral product.

57. (Thrice Amended) A particulate, substantially dustless noncompacted animal feed supplement comprising fermentation solids comprising an antibiotic product of a fermentation process, said fermentation solids resulting from reduction of a fermentation broth including a fermentation medium in which an organism was cultured for producing the antibiotic, said fermentation solids having an antibiotic activity sufficient to ameliorate an antibacterial infection to treat an animal wherein the antibiotic activity is at least about 10g/lb to about 300 g/lb, said animal feed supplement prepared by blending fermentation solids with an edible feed material and a mineral product to produce a mixture thereof.

66. (Amended) A particulate, substantially dustless animal feed supplement comprising fermentation solids comprising an antibiotic product of a fermentation process, said animal feed supplement prepared by:

culturing an organism producing an antibiotic in a fermentation medium to produce a fermentation broth;

reducing said fermentation broth to obtain fermentation solids comprising said antibiotic; drying said filtration solids to produce a dry solid;

granulating said dry solid to produce granulated fermentation solids comprising granules having a substantially uniform particle size, said granulated fermentation solids

having an antibiotic activity sufficient to ameliorate an antibacterial infection to treat an animal wherein the antibiotic activity is at least about 10g/lb to about 300 g/lb; and

blending said granulated fermentation solids with an edible feed material and a mineral product.

77. (Amended) A particulate, substantially dustless animal feed supplement comprising fermentation solids comprising an antibiotic product of a fermentation process, said animal feed supplement prepared by:

culturing an organism producing an antibiotic in a fermentation medium to produce a fermentation broth comprising said antibiotic;

adding an additional quantity of said antibiotic to the fermentation broth to increase the antibiotic activity of said fermentation broth;

reducing said fermentation broth to obtain fermentation solids comprising said antibiotic;

drying said fermentation solids to produce a solid having a low moisture content; and

granulating said dried solid to produce granules having a substantially uniform particle size, said granulated fermentation solids having an antibiotic activity sufficient to ameliorate an antibacterial infection to treat an animal wherein the antibiotic activity is at least about 10g/lb to about 300 g/lb.

87. (Thrice Amended) A particulate, substantially dustless animal feed supplement comprising fermentation solids comprising an antibiotic product of a fermentation process, said animal feed supplement prepared by:

providing fermentation solids, said fermentation solids having antibiotic activity;

adding an antibiotic to said fermentation solids;

drying said fermentation solids to produce a solid having a low moisture content; and

granulating said dry solid to produce granulated fermentation solids comprising granules having a substantially uniform particle size, said granulated fermentation solids having an antibiotic activity sufficient to ameliorate an antibacterial infection to treat an animal wherein the antibiotic activity is at least about 10g/lb to about 300 g/lb.

101. (Amended) A medicated animal supplement for the treatment of animals, said supplement comprising granular fermentation solids including an antibiotic, said fermentation solids resulting from reduction of a fermentation broth including a fermentation medium in which an organism was cultured for producing the antibiotic, said fermentation solids having an antibiotic activity sufficient to ameliorate an antibacterial infection to treat an animal wherein the antibiotic activity is at least about 10g/lb to about 300 g/lb.